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### **A CI component in carbonaceous chondrites**

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We determined volatile element abundances in carbonaceous chondrites (CC) by sector field-ICP-MS. All volatile elements with  $T_{\text{cond},50\%}$  between 530 and 800 K are in each CC group depleted to the same extent (between 0.15 and 0.70 x CI) relative to CI. The degree of depletion correlates with the respective matrix abundances. The unfractionated pattern of highly volatile elements can be explained by mixing volatile depleted refractory matter with an unfractionated component of CI composition which has never been heated substantially. Chondrule-matrix complementarity requires the formation of chondrules and matrix from the same reservoir. Thus, the idea of partial condensation from a hot solar nebula as the cause of volatile element depletion in CC is challenged by the presence of a matrix related low-temperature component. Should volatile depletion not have occurred during partial condensation of a hot solar nebula, the heating mechanism of chondrule formation would be a possible cause. The decreasing abundances of volatile elements with  $T_{\text{cond},50\%} > 800$  K may still represent a condensation sequence possibly related to chondrule formation.

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